

**IN THE CLAIMS**

Please consider the following amended claims:

Claims 1-10 (Cancelled)

Claims 11-13 (Withdrawn)

Claim 14 (Withdrawn)

Claim 15. (Previously Amended) An isolated DNA encoding a protein having an amino acid sequence as set forth in SEQ ID NO: 2.

Claim 16. (Currently Amended): An isolated DNA encoding a protein having Rho-GEF activity comprising an amino acid sequence set forth in SEQ ID NO: 2 in which one to several amino acids have been deleted, substituted or added, the protein being specifically expressed in differentiated chondrocytes versus dedifferentiated chondrocytes, and the protein being such that

(1) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 1st to 374th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 1st to 374th amino acids in the SEQ ID NO: 2,

(2) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 544th to 737th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 544th to 737th amino acids in the SEQ ID NO: 2, and

(3) the amino acid sequence of a portion of the protein corresponding to an amino acid sequence ranging from the 764th to 854th amino acids in SEQ ID NO: 2 in the sequence listing has homology of 85% or more to the amino acid sequence ranging from the 764th to 854th amino acids in the SEQ ID NO: 2.

Claim 17. (Currently Amended): An isolated gene encoding a protein having Rho-GEF activity comprising DNA shown in the following (a) or (b):

- coding region*
- (a) DNA having a nucleotide sequence ranging from the 49<sup>th</sup> to 3,183<sup>rd</sup> bases in a nucleotide sequence set forth in SEQ ID NO: 1; and
- (b) DNA which is hybridized under stringent conditions with DNA having a nucleotide sequence ranging from the 49<sup>th</sup> to 3,183<sup>rd</sup> bases in a nucleotide sequence set forth in SEQ ID NO: 1, and which encodes a protein specifically expressed in differentiated chondrocytes as compared to dedifferentiated chondrocytes, wherein stringent conditions are defined as those conditions which permit hybridization of DNA's having a homology of 80% or more to SEQ ID NO: 1, but at which nucleic acids having lower homology do not hybridize.

*D1*  
*A*

Claim 18 (Cancelled)

Claims 19-21 (Withdrawn)

Claims 22-24 (Cancelled)

Claim 25. An isolated nucleic acid molecule consisting of the DNA sequence of SEQ ID NO: 1.

Claim 26. (Currently Amended): An isolated nucleic acid molecule comprising a fragment that encodes at least ninety consecutive amino acids of SEQ ID NO: 2.

Claim 27. An isolated nucleic acid molecule consisting of a DNA sequence complementary to the sequence of SEQ ID NO: 1.

Claim 28. (Currently Amended): An isolated nucleic acid molecule comprising a fragment that is complementary to a nucleic acid which encodes at least ninety consecutive amino acids of SEQ ID NO: 2.

Claims 29-31. (Withdrawn)

DM  
Claim 32. (Previously Amended): A kit for identifying a differentiated chondrocyte from a dedifferentiated chondrocyte comprising at least one of the nucleic acids of claims 15-17 and 25-28.

Claim 33 (Withdrawn)

Claim 34. (Currently Amended): An isolated nucleic acid molecule obtained by PCR or RT-PCR amplification using primers having the sequences of SEQ ID NO: 21 and SEQ ID NO: 22.

Claims 35-38 (Withdrawn)

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